NORTHFIELD

CONSUMER CONFIDENCE REPORT

JUNE 2007

WATER DEPARTMENT

NORTHFIELD WATER DEPARTMENT

INTRODUCTION

The Northfield Water Department Consumer Confidence Report contains information about your water system. The report contains Water Quality data that was collected during 2006. This report is required by the State of Vermont as part of the Safe Drinking Water Act.

There are several key areas in the document that are explained in detail. You will receive a Consumer Confidence Report each year that will help you to better understand the quality of Northfield's water and other pertinent information about the system.

The next report will be delivered in June 2008. We hope you will read the information and, if you have any questions, please contact the Utility Office at 1-802-485-5411.

Thank you for your continued support.

WATER QUALITY REPORT - 2006

This report is a snapshot of the quality of water that we provided from January 1 through December 31, 2006. This report is designed to inform you about the quality of water and services we deliver to you every day. Our goal is to provide you with a safe and dependable supply of drinking water. Included are details about where your water comes from, what it contains, and how it compares to U.S. Environmental Protection Agency (EPA) and state standards.

Public Water System Name: Northfield Water Dept. **Date:** June 15, 2007

WSID #: 5275 **Town:** Northfield

Water Source Information:

Northfield's water sources are:

Vermont Source Type:	**Gravel Screened Well**
EPA Source Type:	**Groundwater, non-purchased**
Source Name:	**WELL 1 - Drilled 1939 - 400 GPM**
Vermont Source Type:	**Gravel Screened Well**
EPA Source Type:	**Groundwater, non-purchased**
Source Name:	**WELL 2 - Drilled 1946 - 700 GPM**
Vermont Source Type:	**Gravel Screened Well**
EPA Source Type:	**Groundwater, non-purchased**
Source Name:	**WELL 3 - Drilled 1999 - 1000 GPM**

Recent sampling indicates that these sources are not under the influence of surface waters.

Source Protection Plan: We have a source protection plan available from our office that provides more information such as potential sources of contamination. The Water Supply Division approved our Source Protection Plan on May 23, 2002.

Our system's susceptibility to potential sources of contamination is: road salt, vehicle, or train accidental spill, septic systems, fertilizer, runoff, pesticides, herbicides, and chemicals.

Please contact the Utility office (1-802-485-5411) if you notice any chemical or petroleum spills in the source area.

Owner/Operator and Public Participation Opportunities:

If you have any questions about this report or concerning your water quality, please contact by telephone or in writing the persons listed below. We want our customers to be informed about their water quality. If you want to learn more or discuss the water system, please attend any of our regularly scheduled public Trustees meetings. You may also request to be put on the Public Participation part of the agenda by contacting the Municipal Manager.

For updated information regarding any of Northfield's municipal departments or boards, please check the official Northfield Municipal website (www.northfield-vt.gov).

MUNICIPAL MANAGER:	**SUPERINTENDENT OF PUBLIC WORKS:**	**OPERATORS:**
Nanci Allard	William C. Lyon	Patrick Demasi
51 South Main Street	51 South Main Street	James Russo
Northfield, VT 05663	Northfield, VT 05663	Phil Gleason
1-802- 485-6121 (W)	1-802- 485-6121 (W)	Peter Demasi, Jr.
nanciallard@northfield.vt.us	1-802- 485-8443 (H)	

THE ELECTED OFFICIALS RESPONSIBLE FOR THE SYSTEM ARE THE VILLAGE TRUSTEES:

James Wilson, Chair

Samantha Baraw — Thomas McCarney

Libby Hambleton — Richard Suitor

REGULARLY SCHEDULED PUBLIC TRUSTEES MEETINGS ARE HELD:

Date: 2nd and 4th Tuesdays of each month
Time: 7:00 P.M.
Location: Community Room, Brown Public Library
93 South Main Street, Northfield, VT, 05663

FOR BILLING INFORMATION: Contact the Utility Office, 1-802-485-5411

Sources of Drinking Water and Contaminants:

General Information

The sources of drinking water (both tap water and bottled water) include surface water (streams, lakes) and ground water (wells, springs). As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals. It also picks up substances resulting from human activity and from animals. Some "contaminants" may be harmful. Others, such as iron and sulfur, are not harmful. Public water systems treat water to remove contaminants, if they are present.

In order to ensure that your water is safe to drink, we test it regularly according to regulations established by the U.S. Environmental Protection Agency and the State of Vermont. These regulations limit the amount of various contaminants:

- *Microbial organisms* (viruses and bacteria) may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- ✯ *Inorganic chemicals* (salts and metals) can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, or farming.
- ✯ *Synthetic Organic chemicals* (pesticides and herbicides) may come from agriculture, urban storm water runoff, residential uses, and careless disposal of household chemicals.
- ✯ *Volatile Organic chemicals* (gasoline and solvents) may come from gas stations, urban storm water runoff, septic systems, industrial process, and careless disposal of household chemicals.
- ✯ *Naturally occurring radioactivity*

In order to ensure that tap water is safe to drink, EPA and the State of Vermont prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and State regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

NORTHFIELD WATER QUALITY DATA

The table below lists all the drinking water contaminants that we detected during the last year. It also includes the date and results of any contaminants that we detected within the past five years tested less than once a year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

Terms and abbreviations - In this table you may find terms with which you might not be familiar. To help better understand these terms we have provided the following definitions:

- ♦ **Maximum Contamination Level Goal (MCLG):** The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- ♦ **Maximum Contamination Level (MCL):** The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water, MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
- ♦ **Maximum residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health.
- ♦ **Maximum residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. Additional disinfectant may help control microbial contaminants.
- ♦ **Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- ♦ **90th Percentile:** Ninety percent of the samples are below the action level. (Nine of ten sites sampled were at or below this level).
- ♦ **Treatment Technique (TT):** A process aimed to reduce the level of a contaminant in drinking water.
- ♦ **Parts per million (ppm) or Milligrams per liter (mg/l):** (one penny in ten thousand dollars)

- **Parts per billion (ppb) or Micrograms per liter (µg/l):** (one penny in ten million dollars).
- **Picocuries per liter (pCi/L):** a measure of radioactivity in water.
- **Nephelometric Turbidity Unit (NTU):** NTU is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Detected Contaminants in NORTHFIELD WATER DEPT

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2006				

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
NITRATE (AS N)	04/12/2006	0.8	0.8	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Lead and Copper	Date	90th Percentile	Range	Unit	AL	Sites over AL	Typical Source
COPPER	2004	0.21	0.04	ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2004	5	2	ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, INCLUDING RA, EXCLUDING RN & U	04/29/2003	0.3	0.3	pCi/L	10	0	Erosion of natural deposits
RADIUM, COMBINED (226,228)	04/29/2003	0.3	0.3	pCi/L	5	0	Erosion of natural deposits
RADIUM-228	04/29/2003	0.3	0.3	pCi/L	5	0	Erosion of natural deposits

Disinfection Byproducts	Monitoring Period	RAA	Range	Unit	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2006							

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2006							

Violation(s) that occurred during the year

Type	Category	Analyte	Compliance Period
No Detected Results were Found in the Calendar Year of 2006			

ADDITIONAL INFORMATION

The Northfield Water System continues to provide chlorination to the water supply.

We add fluoride to our water supply to promote public health through the prevention of tooth decay.

There are three (3) chemicals added to your water supply:

1. **Corrosion Control:** The well water is low in pH; this results in the leaching of lead and copper from the customers' plumbing and thus deposits those contaminants in the water. In order to eliminate the lead and copper, a very small amount of caustic soda is added to the water. Our recent sampling results indicate that this treatment is working. We also recommend that you let a faucet run until the water is cold each morning. This will eliminate the water that has set in the plumbing during the night and assure you that the water is fresh.
2. **Fluoride:** A small amount of fluoride (approximately 1 ppm) is added to the water in order to promote dental health and strong bones.
3. **Chlorine:** the water supply is chlorinated at an average rate of 0.5 ppm.

These treatments have been approved and are monitored by the State of Vermont Water Supply Division.

Health information regarding drinking water

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from EPA's Safe Drinking Water Hotline (1-800-426-4791)

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline.

The State of Vermont Water Supply Division's telephone number is 1-802-241-3400. Their website address is www.vermontdrinkingwater.org

Fluoride in the Drinking Water:

The Northfield Water Department's first priority is the protection of public health. We are in full compliance with the U.S. Environmental Protection Agency's standard for fluoride in the drinking water. We pay close attention to new health effects research and are interested in the new report on fluoride in drinking water from the National Research Council.

The fluoride level in our community drinking water is 1.0 to 1.2 mg/L, which is well below EPA's current standard of 4 mg/L to protect against adverse health effects. In fact, our fluoride level is below EPA's secondary level of 2 mg/L, which was set to protect against cosmetic dental effects that can occur from excess fluoride consumption.

The NRC report examined water supplies with high levels of naturally-occurring fluoride. The NRC report **does not** examine health risks or benefits associated with community water fluoridation. Community water fluoridation is the process of adding fluoride to public water supplies to reach an optimal level of .7-1.2 parts per million in order to protect people against tooth decay.

Community water fluoridation is supported by the American Dental Association (ADA), the American Medical Association (AMA), the U.S. Public Service and the U.S. Centers for Disease Control and Prevention (CDC). Community water fluoridation has dramatically reduced child cavity rates and tooth decay where it has been implemented.

We will pay close attention to any action U.S. EPA takes based on this new report. Local residents can be assured that we will continue to take the necessary steps to protect public health.

Source Protection

The Village of Northfield owns thirty (30) acres around the wells and this offers a considerable amount of protection to the source. However, other activities in the surrounding area can affect the water. Some of these include septic systems, chemicals, oil storage, floor drains, etc. The Source Protection Plan currently is being updated. There is a plan in place to extend the wastewater collection system to serve the area where the wellfield is located. The Town/Village Inter-Local Agreement Committee is working on this project as well as exploring funding for it.

Improvements

The water mains are now one hundred (100) years old and more leaks are occurring. The Village Trustees have employed the engineering firm Stantec Consulting Services, Inc. to develop a phased replacement schedule over a period of six (6) to eight (8) years. This will be expensive but, given the fact that the new mains will last for another one hundred (100) years, is certainly cost effective. The first phase of the Main Replacement Project will include new mains from North Main Street in the Village to Northfield Falls. We anticipate that a bond vote for this part of the project in the Fall of 2007 with construction scheduled to take place in 2008. We ask for your support in these endeavors as they come up for vote.